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ABSTRACT

Recent findings from the fields of brain research and speech perception suggest that non-verbal approaches may be helpful in pronunciation learning. The left side of the brain uses sequential information, such as verbal descriptions. The right side works in a more simultaneous manner, specializing in spatial relations and pitch perception, among other things. It is suggested, therefore, that teaching of new articulations and intonation patterns should be presented in non-verbal ways, as a supplement to regular procedures. The following visual techniques are discussed and applied to the English sound system. Three-dimensional models are used to display tongue positions. Rubber sheeting with painted symbols is stretched to practice lengthening of stressed vowels. Sounds are color-coded, to remind the literate student not to be misled by spelling. Difficult contrasts like "l" and "r" are presented through overlay drawings, views from above, and two-step drills. Red acetate is laid over red letters, to emphasize the muteness of silent letters. The kazoo is used to teach stress patterns. Because both tasks and students vary, there is no one best way to teach a language. These ideas are offered as aids in the teaching of pronunciation. (Author/AMH)

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GADGETS:

SOME NONVERBAL TOOLS FOR TEACHING PRONUNCIATION

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GADGETS

NONVERBAL TOOLS FOR TEACHING PRONUNCIATION

Language teachers are always asking "What's new, and how can I use it?" I think some extraordinary ideas from the fields of brain research and speech perception offer some useful answers to these questions in the area of teaching pronunciation.

Note: This paper was originally intended to help experienced and phonetically sophisticated teachers solve problems such as inadequate stressed vowel elongation. But I have discovered that many of my colleagues find themselves teaching ESL without having been given the basic facts of English pronunciation. Therefore, I am including explanations of the most necessary information. These paragraphs are in italics so that those readers who are familiar with phonetic theory can skip over them and concentrate on the descriptions of new tools.

The Theory of the Right and Left Brain

For more than 100 years, doctors have observed that the two sides of the brain have quite different functions. The most common observation was that an injury to the left brain often had a serious effect on language use, whereas an injury to the right usually did not. Researchers puzzled over a variety of

questions, such as: "If the left brain is so important for language, what is the right brain good for?" and, "Why do people with language problems (as a result of injury or disease) sometimes learn new words more easily if they sing them?" (Albert, 1973). However, the search for direct answers was blocked by the apparent impossibility of testing each side separately.

Fifteen years ago, neurosurgeons divided a patient's brain down the middle to treat his severe epilepsy. This radical step was taken because nothing else helped. Its object was to prevent the spread of seizures from one side of the patient's brain to the other. An incidental result was that very little information could be transferred either. It, therefore, became possible, for the first time, to test each side separately. The subsequent study of this and later "split-brain" patients has produced a dramatic new verification of the principle of "hemispheric specialization" (Bogen, 1975). I think this is of great significance for teachers.

Simply put, the left side of the brain prefers sequential thought, and the right side prefers simultaneous thought. Other labels include: linear vs. holistic; logical vs. intuitive; and abstract vs. concrete. A partial answer to the question, "What is the right brain good for?" is spatial relations, timbre and

melody (Bogen, 1977, personal correspondence). For practical classroom purposes, I think it is useful to think of the right brain/left brain contrast as the difference between verbal and nonverbal learning. The most productive teaching would seem to be that which appeals to both sides of the brain.

All of us with experience in teaching pronunciation are well aware that verbal explanations have a rather weak effect. Since pronunciation processes are basically spatial tasks (and melodic, in the case of intonation), it may simply be that the verbal approach is appealing to the wrong side of the brain. This may be especially true for our students who, after all, are not very good at English. When a student fails to understand a verbal explanation, a teacher instinctively turns to some kind of visual aid. Elementary school teachers have been using pictures and objects ever since they first noticed children's eyes glazing over. My hope is that you will see the connection between the Glazed Eye Syndrome (which occurs in adults just as often as in children) and the principle of alternative modes of learning. Visual and musical aids should not be just a nice supplement, but a fundamental teaching approach; the verbal and nonverbal tools should be used as a matched pair. Toward this end, I invite you to share my Right Brain Gadgets.

Vanishing Letters

This technique is based on the simple fact that a transparent red plastic sheet placed over red marks will make them disappear, if the reds are close in color quality. This principle could have a number of teaching applications, but I use it to demonstrate mute letters. According to Arthur Kennedy in "American Speech" (December 1933), "Nearly 1/5 of the words on a printed page contain silent letters." I have a poster with the words "Can ghosts talk?" painted in blue letters, except for the "h" and "l" which are red. There is a red cartoon ghost below. When red acetate is placed over the poster, the ghost disappears, as do the letters "h" and "l".

I show the poster and then ask the class to volunteer some words with silent letters, which I put on the board. Then I divide the class into teams, giving them about 10 minutes to think of more such words. It is best to rule out silent vowels because that can get too tricky. For instance, "does". When the time is up, the teams dictate their lists to me. Since the words generally are thought of in groups (fight, light, might) this produces good patterns on the board. The team activity is an excellent example of students teaching each other.

After all the words are on the board, I give each student a small red pencil (actually, half of a pencil) and a small piece

of red acetate. Since you can cut 8 of these from a clear report cover, the cost per student is about ten cents. Each student can now make a list from the board, being careful to change from pen (or ordinary pencil) to red when writing the silent letters. If the red square is held over this it will "work". This is an amusing "focusing" activity for a slow spot in the semester.

The Arrow and the Stop Sign

When the language learner is puzzled over a new sound, it is helpful to identify some of the physical differences. One useful distinction is the way the air flows or stops. In technical terms, is it a stop or a continuant?

The fastest way to explain the difference is not to explain at all, but to demonstrate. You can say "This is a continuing sound" and then walk across the room holding an arrow sign, while saying, "mmmmm..." After a bit, hold up a stop sign and say /p/ (the sound, not the letter). Then say "That was a stop sound." March back the other way saying "nnnnn..." with the arrow; then /d/ with the stop sign. Now ask the class to judge a sound like /s/; is it a stop or a continuing sound? (or, with a beginner class; is it 1 or 2?) If there is doubt on anybody's face, start marching again while sounding "sssss..." The point should be clear before you run out of air.

Stop sounds are: b, p, t, d, k, and g (pronounced buh, puh, tuh, duh, and guh!). All other sounds are continuants except the combinations "dzh" (as in "judge") and "tsh" (as in church). The beginning of the word "chair" is a combination of a stop "t" and a continuant "sh". The beginning of "share" is a plain continuant "sh". If your students understand this, they can be helped to clear up a common error. The sound at the beginning of the word, "jam" is a combination of the stop "d" and the continuant "zh" (as in pleasure). The point is that you can't say "chair" or "jam" without pressing your tongue first into a true stop-air position.

The Fly in the Ice

One of the most useful facts students can learn is the distinction between voiced and voiceless sounds. Tell the class to put their hands on their throats (i.e. Adam's apple) and say "ahhh", continuing the sound until they can feel the vibration of their vocal cords. This vibration is called "voice". All English vowels are voiced. Now ask your students to say "ssss", continuing the sound so that they can notice the vibration is absent. This is a voiceless sound. Probably all of your students make this sound easily, but many may have trouble with "zzzz", which doesn't exist in many languages. If they understand voicing, they need only say "ssss" and add the vibration. This will produce "zzzz",

a voiced sound. This distinction occurs in the following English pairs, going back from the front of the mouth: p/b, f/v, t/d, s/z, sh/zh, tsh/dzh, and k/g.

A good way to practice hearing (and saying) distinctions is with a minimal pair drill. Put two columns on the blackboard and call out a word, asking students, "Which column?"

1	*2*
bus	*buzz*
peace	*peas*
rice	*rise*

A handy source book for minimal pairs (and information about problems of specific language groups) is Nilsen and Nilsen (1971).

After the minimal pair drill, a minimal sentence drill follows quite naturally. It is the part I like best. Donald Bowen introduced contextualized pronunciation drills in a fine TESOL article (1972) and you can have a lot of fun with them. Here is my own most successful pair. I write "There's something in my eyes!" on the blackboard. I say it, with comic distress. The class repeats. I then write the response, "Call a doctor!" which is said with drama, and repeated by the class in the same tone of voice. Then I write (under the first exclamation so that the matching is visible), "There's something in my ice!" The response is "Call the waiter!" To add a bit of fun, I pass

around a plastic ice cube with a fly in it. This is not really necessary, but it certainly wakes up the class. The method with this drill is the same as the minimal pair drill, but students are answering with a meaningful response, distinguishing ideas solely on the basis of the "target" sound.

Students can take turns challenging the class, and then they can be formed into small groups (3 is a good number) to drill each other. This gives everybody a lot of active practice time.

The Visible Tongue

There are always some students in the class who simply can't make the sounds you are teaching, for instance, "r" and "l". Or, perhaps, they can't hear the distinctions. There is no use going on with the drills if this primary step isn't complete. A common procedure with the "hard case" student is to give him a careful verbal description of the articulation. This is a classic example of the use of a linear method to teach what is in essence a composite action. When it fails, sensible teachers will then turn to profile drawings of the tongue. These can be very helpful, especially if you include a view from above, which makes it easy to see that for "r", the tongue is broad and bunchy, while for the "l", it is quite long and narrow (Fig. 1). The difficulty with drawings, however, is that the crucial mouth

OVERHEAD VIEWS "R" "L"

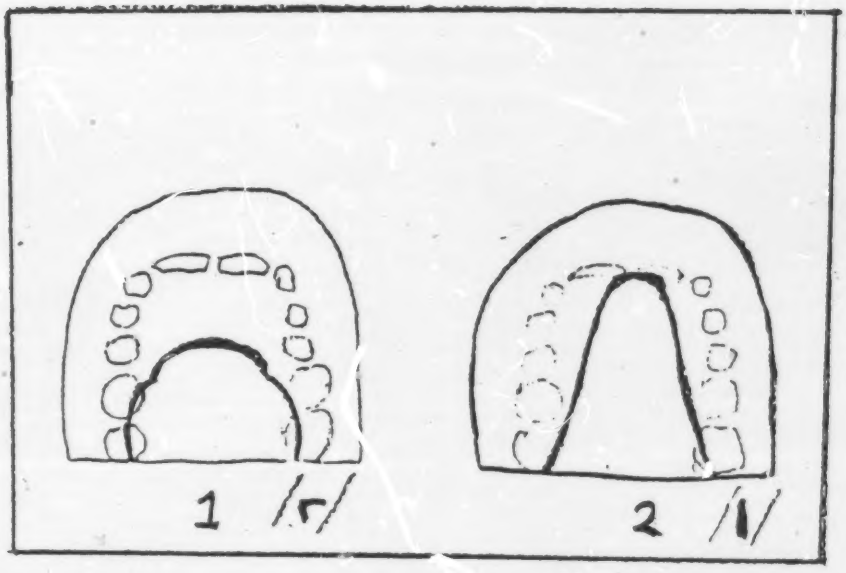

figure 1

relationships are actually three-dimensional. Many people, including me, do not have a good enough sense of spatial relationships to put all this information together into a simultaneous gesture. But suppose the student could see inside, as you demonstrate the sound...

My solution is a larger-than-life plaster mouth model. I ordered it (Stone Dentoform Model S-9634-MG) for $7.00 from Columbia Dentoform Corp., 49 East 21st Street, New York, NY 10010. I have put narrow hinges on it so that a student can look inside from the back. The top jaw has been sawed in half, so that the tongue is visible from the side, in its relationship with the roof of the mouth. The interchangeable tongue forms are made from Play-Doh or self-hardening clay. If you want authentic information about the tongue shape (and are planning a trip to northern California), arrange to see Dr. Carol Wall's tongue cast collection in the Department of Anthropology, University of California, Davis. A professor of Articulatory Phonetics, she perfected the cast-from-life technique I developed. The result is a good example of simultaneous information display.

Sounds in Color

Since the sound/letter connection is so difficult in English, I have found color an excellent aid. Caleb Gattegno's Words in

Color posters are beautiful but too elaborate, I think. There are too many colors. But I find his miniature color cards for Spanish (25 sounds), French (37 sounds), and English (58 sounds) a vivid way to show the different sound complexities of these languages. Gattegno materials can be ordered from Educational Solutions, 80 Fifth Avenue, New York, NY, 10011. I have made my own posters with a simple color scheme. For making a schwa poster, I use black letters on a white background. The appropriate vowels in such words as "cup," "tough," and "love" are painted yellow. This is a particularly effective way to convince people that, contrary to their literate instincts, the sound is the same despite the spelling, even when two vowels are together.

Students who have been reading English for some time have an ingrained habit of misperceiving some letters. I use color as a way of getting around this habit. In a poster list of minimal pairs, I use a color-code to replace the target letters. The next step is the same list with the letters printed in full, but with a color cue laid over the target sounds. This principle is then applied to running text. The color is used to pull against the habit associated with the letter (Fig. 2).

Cheap Bio-feedback Machine

Continue the color-code by painting big letters (fake wood from

	Color only		Color plus letter	
yellow	ed	ed	l ed	r ed
	oad	oad	l oad	r oad
red	ay	ay	l ay	r ay
	ight	ight	l ight	r ight

figure 2

TWO STEPS TO "R"

TWO STEPS TO "L"

figure 3

the hardware store). Close your eyes and have a student call out words from the minimal pair list you've been teaching. Hold up the letter you think you heard. The student will either voice approval or make a rapid re-try. This method is especially suited to small group activity.

Two Steps to "R"

The more tricks you have up your sleeve, the better chance you have of finally reaching the "hard case." Here's something that may help. With the aid of a profile drawing, perhaps with overlays, show the tongue position for "ahh". The second step is to curl the tongue back while continuing the "ahh" sound (Fig. 3). This might produce an "r". If not, proceed to some other trick. No one method is worth exclusive use. However, this does seem to reach some people. The same method can be followed with Two Steps to "L". From the "ahh" position, the second step is to reach forward to touch the tooth ridge while continuing the "ahh" sound. Incidentally, color coding the different positions on the drawing keeps them visually separate.

A nice way to end r/l study is with the song "Ukelele Lady". It is full of "l" in all positions and thus serves as a tongue-twister, with a pleasant lilt. I use the Arlo Guthrie record ("Hobo's Lullaby", Reprise Records, Div. of Warner Bros. Records Inc., 4000 Warner Blvd., Burbank, California 91505).

Schwa

The most important sound in the English language is one most native speakers never learn about in school. It is used far more often than any other sound and yet has no place in the alphabet. It is a kind of "wild card", the Joker of the language. The technical name is "schwa" and it is the sound you make when you haven't anything to say, usually spelled "uh...". If that sounds unimportant, it is also the sound you make in the place of most of the vowels in every word you say. It is the sound used in most unstressed syllables.

Say the word "atom". The stress is on the first syllable. The second vowel is pronounced schwa because it is unstressed. In other words, greater strength is given to the stressed vowel by actually reducing the neighbor vowel to a neutral sort of sound with no strength of its own. Now say the word "atomic". The stress has shifted to the second syllable to show a different part of speech. What has happened to the vowel sounds? Not only has the stress shifted, but the actual vowel sounds have changed. The first vowel is now "schwa" and the second is "ahh". The third is something like "schwa". The word "apartment" is another example of how the stressed syllable takes away vowel strength from its neighbors. The phonetic symbol for "schwa" is an upside-down "e", and is the only phonetic symbol you really need.

It is handy to be able to write this on the blackboard:

C A N A D A A P A R T M E N T A T O M A T O M I C*

You can amuse your students in a useful way by showing how a word from their language is pronounced in the English system (i.e., with an American accent). The Spanish word "Acapulco" is pronounced something like "Ahcuhpoolcuh". When the students can see the regular pattern to this mispronunciation, they will know what they must learn.

Intonation and Rhythm

Most people don't realize how much information they get from the musical aspects of speech. For instance, when you're reading, it's perfectly clear which sentences are questions, because they are followed by a special punctuation mark. But if you hear "It's raining?", how do you know it was a question and not a statement? The melody pattern is different for "It's raining." and "It's raining?", although the words are arranged identically. Only the music (rhythm and pitch) signals the difference.

In the extraordinary movie "The Conversation", Gene Hackman plays a private detective hired by a rich husband to spy on his much younger wife. The main part of the work involves recording a

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**Note to purists: I think it is not pedagogically useful to teach more than one mid-central vowel.*

conversation between the wife and her lover. Because of technical difficulties, Hackman has to spend a lot of time trying to clarify the speech on the tape. Most of it is garbled or too cryptic to understand, but during this process, he develops a great sympathy for the young woman. She is clearly in love and frightened. The detective is burdened with the guilt that he might bring her harm through this tape. After much effort, he is able to clarify a crucial sentence in the conversation. The wife says to the lover, "If he finds out, he'll kill us!: At every ominous turn of plot, this sentence echoes in the detective's mind.

The rest of the movie concerns Hackman's panicky efforts to save the girl's life. It is only at the very end, when he sees the husband's body and the smile on the wife's face, that he realizes his prejudice had caused him to mis-hear the sentence. He had unknowingly recorded a murder plot. What the wife actually said was, "If he finds out he'll kill us!". The entire story turns upon the intonation of that sentence.*

The music of speech is important. It is also the most neglected part of language teaching. This has unhappy results. What good is it for the language learner to put together the right words, if the natives can't understand him?

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*My thanks to Harold Lipset, technical advisor for the film, for confirming the exact words.

If a foreigner puts stress on the wrong word, he may be misunderstood in an embarrassing way. For instance, if he says, "I AM studying", he would be thought unnecessarily argumentative. If he said, "You have SOME good ideas", he would be thought insulting. He hasn't followed our normal stress pattern; therefore, he has conveyed messages he didn't intend. Worse, when a student doesn't accent his sentence in an English way, we have trouble sorting out what he's saying. Our job as teachers is to help our students understand: 1) why stress is especially important in English; 2) which words are normally stressed; and 3) how to do it.

1) Why is stress important? Because it's more necessary for understanding in English than in most other languages.

If I say the word "record", how do you know if I mean the noun or the verb? By the stress. Try saying it both ways a few times. REcord/reCORD. One way to demonstrate the emphasis is by tapping the syllables on the table with your hand. REcord.. BANG!pat. reCORD...pat,BANG!

In a similar way, we use music to call attention to the important words in a sentence. We stress these words by raising our pitch, speaking more loudly and lengthening the vowel. All of this happens on the main syllable of an important word.

People are usually quick to recognize the change in pitch and loudness, but many find it hard to accept the claim that the vowel is lengthened. The odd thing is that lengthening is at least as important as the other two factors. In fact, it is essential for English rhythm.

This is the way a distinguished phonetician describes the process: "A stressed syllable is often, but not always, louder than an unstressed syllable. It is usually, but not always, on a higher pitch. The most reliable thing for a listener to detect is that a stressed syllable frequently has a longer vowel." (Ladefoged, p. 97, emphasis mine). We don't think about it, and we can hardly recognize it when it's pointed out to us, yet we rely on the pattern of long and short syllables. This sequence is the rhythmic pattern of speech. There is an old line from a jazz song, "It don't mean a thing, if it ain't got that swing." That is really true in spoken English. One of the main reasons some of our students are so hard to understand is that their rhythm is so un-English that we can't identify the important words.

Most of the other languages in the world do not depend so much on stress. Most of them give a more or less equal length of time to each syllable, even if some are said on a higher, louder pitch. This equality of length makes a very staccato rhythm.

That's why our students (especially the Japanese) sound so peculiar to us. Simply teaching about individual sounds will not alter this foreign rhythm. Perceptual studies have shown that faulty rhythm is far more of a barrier to understanding than faulty sounds. So we really should be spending more of our energy on music drills and less on articulation exercises.

2) Which words are normally stressed? RULE: Nouns, adjectives, and main verbs are usually stressed. Auxiliary verbs, articles, prepositions, and pronouns are usually unstressed. The distinction is basically one between CONTENT words (stressed) and STRUCTURE words (unstressed).

Structure words are actively suppressed or minimized. This is essential to strengthen the contrast with the stressed elements. Some people think that contractions like "isn't", "that's", or "wanna" are sloppy speech. That's because they are confusing formal written language with speech and informal writing. Contractions are actually very helpful in speech, because they de-emphasize less important parts of the sentence. Technically called "reductions", they are also the source of much difficulty for the foreign student trying to understand spoken English. For instance, the quite normally pronounced sentence "Wouldya lika cuppa coffee?" is puzzling to a foreigner used to English only in its printed form. Also, "How longuvya been here?"

confuses most of my students, even if they know the grammar well. Native speakers simply don't realize how far different the written language is from the spoken. In his classic book, Studies in Phonetics and Linguistics, David Abercrombie said "We are so used to deriving our notions of what is correct and logical in language from prose, that we find it hard to realize that a quite different set of standards must be applied to conversation." (Abercrombie, p. 6).

When your students understand the normal way to stress a sentence, then they can begin to understand the meaning of altering the pattern. That is, if we want to call attention to a specific word, we break the RULE. Any native speaker notices the difference and gets the message. That is why the stress in "I AM studying." sounds argumentative. The auxiliary is usually unstressed. (It is so weakened that it is just part of a contraction.) If emphasis is placed on such a word, the message is quite different.

There is a special kind of rhythm problem which is sometimes created by the teacher unintentionally. If we teach our students to carefully enunciate the "th" sound properly for the word "the" (as I used to do before I learned better), we are actually encouraging faulty stress. That is, each time the student pauses at "the", to make sure it is right, he is giving a time allotment which signals stress to the listener. An article

shouldn't get that time. In other words, it would be far better for students to learn to be accurate in the pronunciation of stressed words, and give relatively little thought to the rest. This cuts down the learning load and puts the effort where it counts.

3) How-to-do-it. Say the phrase "a bug". It has two syllables. Each contains the same vowel sound, but one of them is longer than the other.* The first is short, because the word is an article, and not a major part of the message. The second vowel sound is longer because it signals a noun, which <u>is</u> important. (Notice, I underlined "is". This is the typewriter's weak way of showing part of the rich music of spoken language.)

The first vowel sound is low in pitch, has little force, and is short in duration. The second vowel sound starts high (then falls, since it is the end of the "remark"), and is louder and longer. A good rhythm drill (pounding on the desk while reading aloud) can be built from lists like "a book, a tree, a Coke, the tree, on his head, in my house, etc." Virginia French Allen gave some particularly good dialogue drills in her excellent article on intonation. (Allen, 1971).

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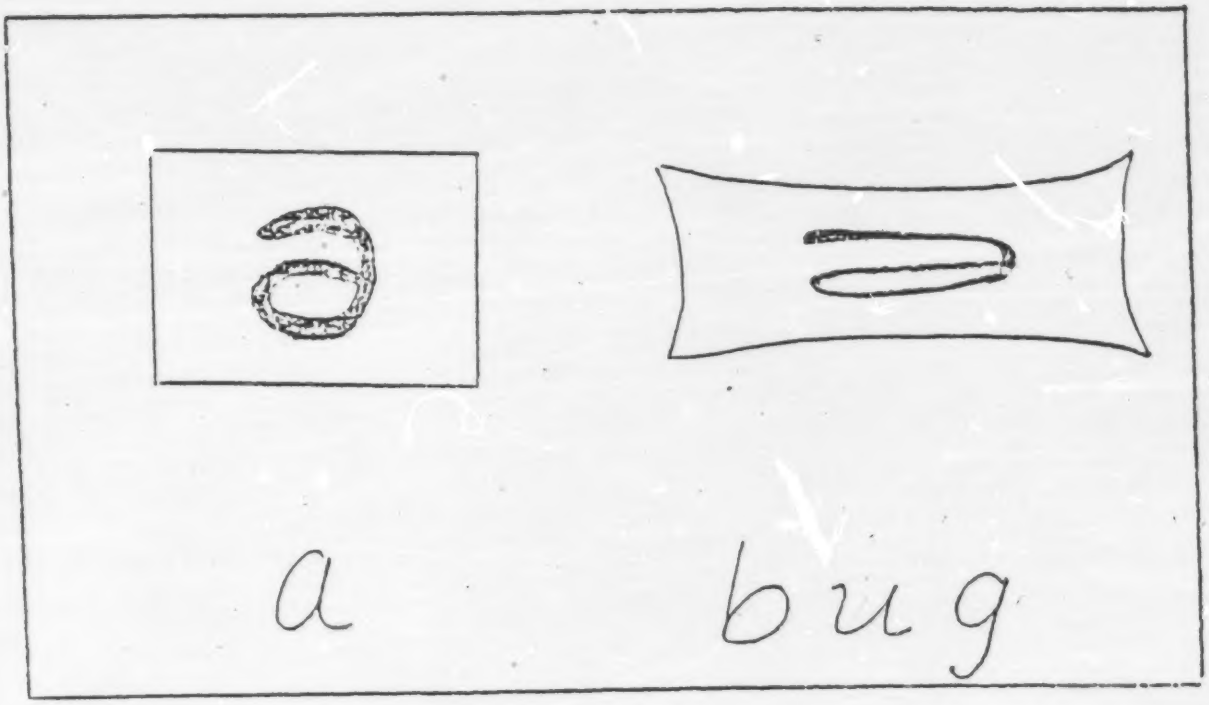
*Note: As I noted before, one mid-central vowel is really all a foreign student should be asked to worry about.

Vowel Stretchers

Some students have a hard time lengthening the stressed vowel (REcord, reCORD) adequately. It goes against their deepest instinct. What we need is a teaching tool with "right brain appeal." I like a piece of rubber sheeting, with the vowel symbol painted in permanent ink. The vowel can be stretched out to make quite an effective visual contrast with the unstretched state. I find that putting this into the hands of students during drills adds a kinaesthetic element of pulling the vowel out while saying it, and helps focus on the task (Fig. 4). In fact, the "stretcher" alone helps, even without a painted symbol. Industrial latex can be bought from construction supply firms (see "rubber sheeting", in the Yellow Pages). But it's heavy and an ugly color. You could also use a light rubber glove or a large balloon (unblown). But if you want really thin rubber in beautiful colors, you can order it by the yard ($6.00) from Inn-Skin, Box 912, Brattleboro, Vermont 05301.

Magnetic Tutor Board

This tool was developed for teaching the alphabet and numbers, but I have extended it to include stress. The principle is simply that a steel cooking sheet will attract magnets. Magnetized rubber strips can be bought at hobby shops and cut into



VOWEL STRETCHER

figure 4

pieces with ordinary scissors. The physical sensation of placing a magnetized piece on this board is far more compelling than the usual placing of a cardboard marker.

One side of my board is a map of downtown Davis. Since we have lettered and numbered (rather than named) streets, I use it to practice ordinal numbers, as well as the usual map questions, "How do you get to the drugstore from here?" Monopoly houses make good markers.

The other side of the board is marked with three parallel colored plastic tape strips. Each is divided lengthwise by a black ink line. This represents the shelves in between supermarket aisles. Miniature foods (purchased or made from Play-Doh) are glued to small magnets. The basic question is "Where is the...?" and the answer is, "It's on..." (the number and letter of the aisle). I found miniature blocks (meant for bead-stringing) and turned them into alphabet and number blocks as markers for the aisles. However, any marker can be magnetized. Thus, two students can make a slot drill for each other by moving around a large number of little objects. This may strike teachers of adults as too childish. My own experience is that even the most sophisticated adults are amused by miniatures and find the active use of their hands to be an attention-focuser.

MAGNETIC TUTOR BOARD

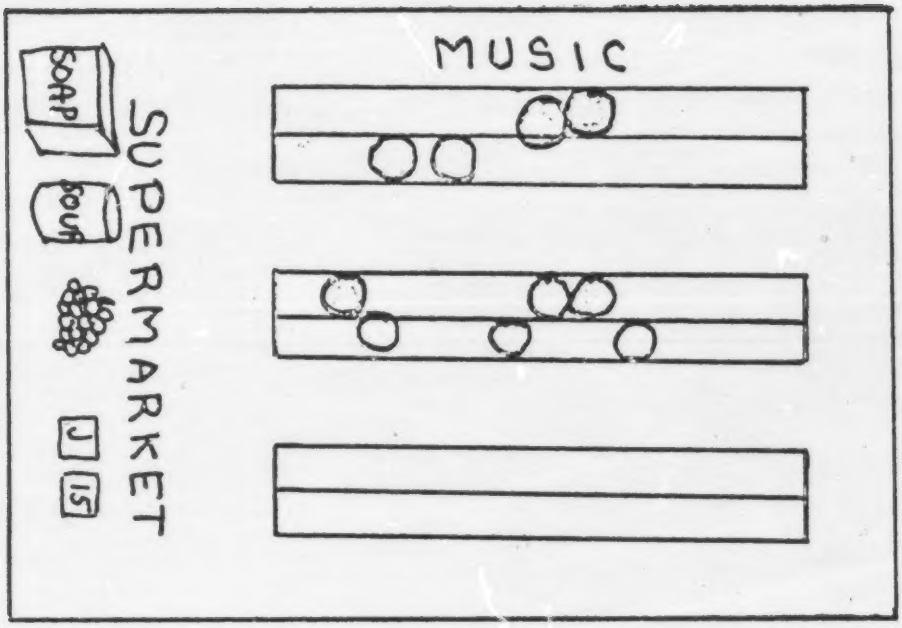


figure 5

It's a bug?

No, an insect.

The third use of the board is with stress. The supermarket shelves are now used horizontally, and become a simplified musical staff.* Perception studies show that the important pitch cue for stress is simply whether the direction is up or down. (Wang, 1961) (Lieberman, 1965) Therefore, I place a marker either above or below the black line to suggest stress or lack of it. I re-emphasize the point by using two colors. Poker chips are pleasant markers to handle (Fig. 5).

The Kazoo

Second language learners don't hear intonation very well. When they listen to speech, they are powerfully distracted from paying attention to the "music" because they are struggling to understand strange sounds, word meaning, and difficult grammar. Yet, we know that intonation is very important because, as we have seen, it carries so much information about grammar, as well as emotion. How can we do a better job of helping the student pay attention to the music of English? My suggestion is that we should offer him a speech model stripped of everything but melody and rhythm. Once he has learned to identify the musical elements, I think he is more likely to recognize them in natural speech. How can we strip the speech model? It could be done electronically. (Ohala and Gilbert - forthcoming) But that would involve

*Many texts teach several pitch levels. I think this complicates the learning load and does not really fit the phonetic facts. (Ladefoged, 1975)

elaborate equipment. For a more practical approach, I recommend the kazoo.

A ten-cent plastic kazoo is probably the best tool a pronunciation teacher could have. By humming into it, you can demonstrate intonation in a way which makes students more sharply aware For instance, the kazoo can bring a very quick comprehension of the intonation contrast between questions and statements. I write "It's raining." and "It's raining?" on the board. Then I hum one of them on the kazoo and ask the students to tell me which it was. Correct syllable accentuation is sharply demonstrated this way; REcord, reCORD, NEWSpaper, ecoNOmics. If your Portuguese students have a tendency to drop off the final syllable in words like money, city, coffee, etc., you can use the kazoo to emphasize the number of syllables. The same thing is true for such difficult words as dishes and watches. You can write sentences with stress contrast on the board and practice them like the minimal sound-pair sentences I described before:

1. It's a big cat. No, it's a little one.
2. It's a big cat. No, it's a skunk!

When you hum the first sentence, stressing the adjective, the student's answer should also stress the adjective. When you hum the second sentence stressing the noun, the answer should emphasize skunk. Of course, a picture could liven things up here. After the

students are used to seeing the teacher use the kazoo for drills or casual corrections they can be given their own kazoos for small-group or pair practice. This is a sure stimulant for a sleepy low spot.

The Whole Brain

Most of the teaching procedures suggested here have been "appeals to the right brain." This emphasis doesn't mean, as some people conclude, that the left side should be downgraded in importance. On the contrary, it's only by using both sides in combination that we can read or write. Furthermore, most language students find that they can more easily remember what to practice if they have some verbal description of it. One way to integrate these approaches is to start with an appeal to the right, showing the students the profiles of the tongues labeled "L" and "R". Then show them the overhead views (or models) and ask "Which is the R?" The group discussion which follows should eventually yield some brief descriptive rule, like "Tongue touches for L and not for R." This is a verbal memory aid and presumably keeps the whole brain busy. Notice the difference between this procedure and the common one in which the teacher supplies the rule at the beginning, and then goes directly to the drill, ignoring the right brain almost entirely. Putting teaching objects into the student's hands, and encouraging small-group action (where people

exchange roles as teacher and student) can put a lot of energy to work.

Summary

Tasks vary, students vary. There is no best side of the brain; no single best way to teach. We can be certain only that the goal of efficient language learning cannot be achieved through narrow channels, limited means.

I would like to end with a quotation from one of the wisest of language teachers, Harold Palmer. In his good book, The Principles of Language Study, he listed 9 principles of language teaching. The ninth was called "Multiple Line of Approach." He said, The ninth and last of the essential principles is, in reality, more than a mere principle of language-study, it is even more than a principle of study, it is almost a philosphy in itself." He spoke of the value of eclecticism and summed up by saying, "Let us approach the language, or any specific point in the language, simultaneously from several distinct points of departure, by several distinct but gradually converging avenues." (Palmer, p. 115)

Variety is the spice.

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